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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,105	01/18/2002	Chin Shiong Tsai	0941-0397P-SP	6550

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DISCOVISION ASSOCIATES
INTELLECTUAL PROPERTY DEVELOPMENT
2355 MAIN STREET, SUITE 200
IRVINE, CA 92614

EXAMINER

DRULA, BRIAN F

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/050,105	TSAI ET AL.	
	Examiner	Art Unit	
	Brian F. Drula	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-21 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claims 2-21 are objected to because of the following informalities:

Claim 2 recites the limitations "the first, second, third input signal levels" in line 8, "the first, second, third predetermined signal levels" in line 9, "the rotation rate" in line 16, "the write action" in line 16, and "the pickup" in line 17. There is insufficient antecedent basis for these limitations in the claim.

In lines 3-7, the steps of "determining the number of wrong detection code to be input" and "decreasing the recordable rate if the number of wrong detection codes to be input is over a first predetermined number" are dangling from the rest of the limitations.

Both claims 11 and 17 use the phrase "the dye and coating thickness used to the surface of a CD" in line 3. The language seems to suggest this should read "the dye and coating thickness used on the surface of a CD".

Claim 14 recites the limitations "the write radio frequency profile" in line 1 and "the dye crystallization depth" in line 2. There is insufficient antecedent basis for these limitations in the claim.

Claim 15 recites the limitation "the radio frequency" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 16 recites the limitations "the first second and third input signal levels" in line 3, "the first second and third determined signal levels" in line 4, "the comparison results" in line 6, "the write radio frequency profile" in line 8, "the eight-to-fourteen

modulation" in line 12, "the pickup output power" in line 19, and "the spindle motor" in line 20. There is insufficient antecedent basis for these limitations in the claim.

Claim 18 recites the limitations "the standard sampling points" in line 2, and "the pickup" in line 4. There is insufficient antecedent basis for these limitations in the claim.

Claim 20 recites the limitations "the write radio frequency profile" in line 1 and "the dye crystallization depth" in line 2. There is insufficient antecedent basis for these limitations in the claim.

Claim 21 recites the limitation "the radio frequency" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claims 19-21 are objected to because of the following informalities: Claim 19 should refer back to claim 18 rather than claim 12. Claims 20 and 21 should refer back to claim 16 rather than claim 2.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Tran (US/6697308). Tran discloses a method of improving the yield of a CD recorder by adjustment of the current recordable rate (figure 3, 308 and 310) and a write delay table in the form of write strategies embedded in a servo/recording processor (figure 1, 116) using the data of a write radio frequency profile in the form of a write control profile (figure 3, 302) (column 4, lines 8-10).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Takeda et al. (US/6577571) discloses an optical disk recording apparatus and method including adjusting a write power level based on a modulation degree of a HF input signal. **Takeda et al. fails to disclose or suggest a method including the steps of determining the number of a wrong detection code to be input, decreasing the recordable rate if the number of wrong detection codes to be input is over a first predetermined number, respectively comparing first, second, and third input signal levels with first, second, and third predetermined signal levels, adjusting a write delay based on a jitter input value, and adjusting the current recordable rate and a write delay table based on the adjusted write power and write delay to control the rotation rate of a spindle motor, and a device including a level comparator for respectively comparing first, second, and third input signal levels with first, second, and third determined signal levels and outputting comparison results, a slicer for converting a write radio frequency into the form**

of binary signals to extract a write radio frequency profile, a phase comparator for comparing the binary write radio frequency profile with a mark signal profile modulate by eight-to-fourteen modulation and having a phase error output signal, a low-pass filter for eliminating a low frequency baseline fluctuation in the write radio frequency based on the phase error output signal and generating a jitter value, and a yield control microprocessor for adjusting the recordable delay time and the rotation rate of a spindle motor based on the output results from the level comparator, the jitter value, and an input CRC.

Muramatsu (US/6381203) discloses an optical disk apparatus that adjusts the laser light power and reproduction channel based on a measured jitter value. The jitter value is measured using a slicer to create a binary signal from a reproduced RF input signal and a comparator compares the phases of a reproduced clock pulse signal with the output signal from the slicer to output a jitter detection signal. **Muramatsu fails to disclose or suggest a method including the steps of determining the number of wrong detection codes to be input, decreasing the recordable rate if the number of wrong detection codes to be input is over a first predetermined number, respectively comparing first, second, and third input signal levels with first, second, and third predetermined signal levels, adjusting a write power based on those comparison results, and adjusting the current recordable rate and a write delay table based on the adjusted write power and write delay to control the rotation rate of a spindle motor, and the write action of a pickup in a CD recorder, and a device including a level comparator for respectively comparing first,**

second, and third input signal levels with first, second, and third determined signal levels and outputting the comparison results, a phase comparator for comparing the binary write radio frequency profile with a mark signal profile modulated by eight-to-fourteen modulation, a low-pass filter for eliminating a low frequency baseline fluctuation in a write radio frequency based on the phase error output signal, and a yield control microprocessor for adjusting the recordable delay time and the rotation rate of a spindle motor based on the output results from the level comparator, and a CRC.

Yen et al. (US/6643233) discloses a write strategy for an optical record carrier including reading a code on the pregroove of a storage unit and generating an error number, determining whether the error number falls within a certain range, and writing data based on the write speed and write power corresponding to the number within the range. **Yen et al fails to disclose or suggest a method including the steps of decreasing the recordable rate if the number of wrong detection codes to be input is over a first predetermined number, respectively comparing first, second, and third input signal levels with first, second, and third predetermined signal levels, adjusting a write power based on the comparison result, adjusting a write delay based on a jitter input value, and adjusting a write delay table based on the adjusted write power and write delay, and a device including a level comparator for respectively comparing first, second, and third input signal levels with first, second, and third determined signal levels and outputting comparison results, a slicer for converting a write radio frequency into the form of a binary signal to**

extract a write radio frequency profile, a phase comparator for comparing the binary write radio frequency profile with a mark signal profile modulated by eight-to-fourteen modulation and having a phase error output signal, a low-pass filter for eliminating a low frequency baseline fluctuation in the write radio frequency based on the phase error output signal and generating a jitter value, and a yield control microprocessor for adjusting the recordable delay time based on the output results from the level comparator, the jitter value, and an input CRC.

Kawashima (US/20030112721) discloses an optical disc recording method and apparatus including a level comparator for respectively comparing first, second, and third input signal levels with first, second, and third predetermined signal levels, and adjusting a write power based on the comparison result. **Kawashima fails to disclose or suggest a method including the steps of determining the number of wrong detection code to be input, decreasing the recordable rate if the number of wrong detection codes to be input is over a first predetermined number, adjusting a write delay based on a jitter input value, and adjusting the current recordable rate and a write delay table based on the adjusted write power and write delay to control the rotation rate of a spindle motor and the write action of a pickup in a CD recorder, and a device including a slicer for converting a write radio frequency into the for of a binary signal to extract a write radio frequency profile, a phase comparator for comparing the binary write radio frequency profile with a mark signal profile modulated by eight-to-fourteen modulation and having a phase error output signal, a low-pass filter for eliminating a low frequency**

baseline fluctuation in the write radio frequency based on the phase error output signal and generating a jitter value, and a yield control microprocessor for adjusting the pickup output power, recordable delay time and the rotation rate of a spindle motor based on the jitter value and an input CRC.

4. Claims 2-21 would be allowable if rewritten or amended to overcome the objections above set forth in this Office action.

Reason for Allowance:

The prior art of record considered as a whole fails to teach or suggest:

Per claim 2, determining the number of a wrong detection code to be input, decreasing the recordable rate if the number of wrong detection codes to be input is over a first predetermined number, adjusting a write delay based on a jitter input value, and adjusting the current recordable rate and a write delay table based on the adjusted write power and write delay to control the rotation rate of a spindle motor and the write action of the pickup in a CD recorder.

Per claim 16, a level comparator for respectively comparing first, second, and third input signal levels with first, second, and third predetermine signal levels and outputting the comparison result, and a yield control microprocessor for adjusting the pickup output power, the recordable delay time, and the rotation rate of a spindle motor based on the output of the level comparator, the jitter value, and an input cyclic redundancy check or CRC.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian F. Drula whose telephone number is (703) 605-1157. The examiner can normally be reached on Mon. - Fri., 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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10/18/04